

January 19, 1961

Dr. Harrison Brown
Department of Geochemistry
California Institute of Technology
Pasadena 4, California

Dear Harry:

Many thanks for your interesting manuscript on lunar ice. This has been my own intuitive impression without thinking deeply about it and of course it again shows the dangers of thinking of a planetary body entirely as a homogeneous hard sphere in an isotropic medium.

Where the ice persists presumably dormant spores could survive (if they were ever to get there in the first place!). I hope you send a copy of your ms to Abelson who has been making all kinds of fuss from superficial generalizations.

Two questions for elaboration: (1) the same query for Mercury (and the interesting transition zone), and (2) what about moisture at depth on the moon with hindered diffusion, particularly if there is some heat flow from the center? Shouldn't there be a residual zone of frozen moisture at some depth on essentially the same steady state argument as your own?

Cordially,

Joshua Lederberg
Professor of Genetics